

Grade 8 Unpacked Math Standards – Geometry

8.G.1.1. Students are able to **describe and classify** prisms, pyramids, cylinders, and cone.

Webb level: 1/2

Bloom: Comprehension

Verbs Defined:

Describe: explain/identify

Classify: name/classify

Key Terms Defined:

Prism: right prisms with polygon bases having up to 10 sides

Pyramid: right pyramids with a polygon base having up to 10 sides

Cylinder: right cylinders

Cone: right cones

Teacher Speak:

Students are able to explain, name, and classify prisms, pyramids, cylinders, and cones.

Student Speak:

I can name a 3-dimensional shape as a:

- * prism
- * pyramid
- * cylinder
- * cone

I can classify a pyramid and prism by the shape of its base (having up to 10 sides).

For a pyramid and prism, I can identify the number of

- * faces
- * vertices
- * edges

8.G.1.2. Students, when given any two sides of an illustrated right triangle, are able to **use** the Pythagorean Theorem to **find** the third side.

Webb level: 2

Bloom: Application

Verbs Defined:

Use: apply

Find: calculate the length

Key Terms Defined:

Pythagorean Theorem: the sum of the squares of the legs of a right triangle equals the square of the hypotenuse ($a^2 + b^2 = c^2$)

Teacher Speak:

Students, when given any two sides with whole number values of an illustrated right triangle, are able to apply the Pythagorean Theorem to calculate the length of the third side.

Student Speak:

Given the Pythagorean Theorem and a picture of a right triangle with two given sides, I can calculate the missing length.

8.G.2.1. Students are able to **write** and **solve proportions** that express the relationships between corresponding parts of similar quadrilaterals and triangles.

Webb level: 2

Bloom: Application

Verbs Defined:

Write: write

Solve: calculate the solution

Key Terms Defined:

Proportions: an equation that states that two ratios are equivalent

Similar: corresponding angles are congruent and the corresponding sides are proportional

Teacher Speak:

Students are able to write and calculate the solution for a proportion that expresses the relationships between corresponding parts of similar quadrilaterals and triangles.

Student Speak:

Given similar triangles or quadrilaterals I can:

- * write a proportion to find the missing side length.
- * solve a proportion to find the missing side length.

Given a word problem involving similar quadrilaterals or triangles I can:

- * write a proportion to find the missing side length.
- * solve a proportion to find the missing side length.